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### AN ANALYSIS OF THE PRACTICE OF SMART ADVICE IN TERMS OF GENDER PERSPECTIVE

In today's rapid development of science and technology, it is no longer possible to transfer and memorize the knowledge through traditional teaching methods. Accordingly, students should choose the student-centered education and prepare a free educational environment. Today, in parallel with the advancement of communication technology throughout the world, new searches have been introduced into Educational Sciences. In order to determine the attitudes of the students towards technological equipment, various studies are carried out and necessary educational policies and strategies for the more rational use of investments are taken into consideration. Smart board, which has been used in schools in recent years, has positively influenced learning and contributed to education.

The aim of this study is to evaluate the students' views on smart board use in secondary school in terms of gender. The universe of the research constitutes 1330 students studying in the official secondary schools in the Tasova district of Amasya province in Turkey. The number of students participating in the research is 1012. According to the analysis of data, group frequency values were obtained and Independent t-test was performed for gender variables.

According to the results of the research, the students are pleased to use smart board and think that using technology has contributed to them. In addition, male students showed more participation in survey questions than female students.

**Keywords:** informatics; a gender; smart board; technology; a gender and technology; technological tools; an information technology.

**Tabl. 3. Lit. 9.**

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### АНАЛІЗ ПРАКТИКИ РОЗУМНИХ ПОРАД З ТОЧКИ ЗОРУ ГЕНДЕРНОЇ ПРОБЛЕМАТИКИ

У сьогоденнішньому стрімкому розвитку науки і техніки вже неможливо передавати і запам'ятовувати знання з допомогою традиційних методів навчання. Відповідно, учні повинні вибрати освіту, орієнтовану на учнів, і підготувати вільне освітнє середовище. Сьогодні, паралельно з розвитком комунікаційних технологій у всьому світі, в освітніх науках впроваджуються нові пошуки. Для визначення ставлення студентів до технологічного обладнання проводяться різні дослідження і враховуються необхідні освітні системи і стратегії для більш раціонального використання інвестицій. "Розумна дошка", яка використовується в школах в останні роки, справила позитивний вплив на навчання і розвиток в освіті.

Метою даного дослідження є оцінка поглядів учнів на використання "розумної дошки" в середній школі з точки зору чоловічої та жіночої статі. Сукупність досліджень становить 1330 учнів, які навчаються в офіційних середніх школах в районі Тасова провінції Амасья в Туреччині. Кількість студентів, що беруть участь у дослідженні, становить 1012 осіб. При аналізі даних були отримані значення групової частоти і проведено незалежний t-тест для гендерних змінних.

За результатами дослідження, студенти чоловічої статі із задоволенням користуються "розумною дошкою" і вважають, що використання технологій справляє позитивний вплив на навчання. Крім того, студенти чоловічої статі проявили більше участі в обговоренні питань, ніж студенти жіночої статі.

**Ключові слова:** інформатика; гендер; розумна дошка; технологія; гендер і технологія; технологічні інструменти; інформаційні технології.

**I**nformation. Advances in information technology and the integration of these advances with instructional design make the interest in technology-based learning more and more enjoyable. The use of computers in education started in 1960's with computer aided education applications and continued in 1990's with the use of internet in

education [1, 1]. In today's society, people meet the computer at a young age, at home and at school, both for their homework and for fun [2].

In today's rapid development of science and technology, it is no longer possible to transfer and memorize knowledge through traditional teaching methods. Instead of educating individuals who have

been replaced by curriculum programs and who are loaded with information based on memorabilia, individuals who are free, creative and scientific, who question events, who are aware of problems and who can produce solutions, who are capable of decision making, who are capable of producing information and who are confident [3].

Many countries make various decisions in order to better prepare students for the community life in which technology is dominant. However, the use of computers in education in most of these countries is considered as the starting stage of a process that will take many years [4].

The support given to the rapidly developing information technology classes has decreased gradually towards the end of the 2000s and The Information Technology classes (exp. hardware and software) have become outdated [5].

The development of technology has also changed in education depending on the expression and expression styles and the developments in presentation methods [6]. Developing technology increases educational alternatives in schools and necessitates changes in educational programs in parallel. According to many researchers, effective instructional technologies have the potential to improve the educational system [7 – 8].

One of the tools used in classroom environment is the smart board, which has become widespread in developed world countries in recent years. The components of the smart board system form a panel with an active surface that functions as a computer, a projection device, and a classroom board. Smart board connected to a computer and projection is used with the smart board program installed on the computer. This program is easy to use for many lessons, drawings, formulas, pictures, maps, shapes, etc. it also allows easy use of the infrastructure during the course. In addition to the smart board program, the board can also be used as a computer screen. With this feature, many presentations, video images, animations and office programs installed on the computer or in memory can be easily opened on the board [9].

Within the scope of the project of the Ministry of National Education in Turkey, Increasing Opportunities and Improving Technology Movement (FATİH), it has implemented the largest and most comprehensive education movement put into effect in the world regarding the acquisition of the best education by each student, reaching the highest quality educational content and ensuring equal opportunity in education and using technology in education. Within this scope, the Ministry of National Education aims to develop skills such as technology use, interactive

communication, analytical thinking, problem solving and collaboration. Republic of Turkey Ministry of National Education made smart board installation in all high schools and secondary schools in 2018.

**Gender and Technology.** With women entering the labour market as wage labour, striking changes in the nature of working life and social life in general have occurred. Naturally, the various social problems caused by these changes have been experienced directly or indirectly by almost every part of society, leading to a series of discussions for resolution. This restructuring of the labour force has led to the emergence of a large number of studies focusing on the diversity of women and men in various areas of working life, including the attitudes towards the work, and the sources and consequences of this difference [10].

One of the key concepts used by those who consider technology as “masculine culture” is identity. There are significant symbolic dimensions of gender identity and it is argued that masculinity is partly structured through technical competence. It is stated that men are identified with technology and that the form of identity connects one to the other [11, 141]. The fact that women do not exist in this area is actually defined as part of the feminine gender identity. So identity, emerges as an important mechanism that makes it look like a natural relationship between masculinity and technology. The reason for the woman’s insistence and failure to enter the field of technology is hidden in their feminine identity [11, 151]. Turkle [12], underlines this fact in the relationship between computer technology and boys and girls. In a study conducted by Lockheed [13], computer technology is only a unique invention for men and women to prevent them from entering this area is explained by the findings that computers meet at a young age are only male children. A large number of computer games addressing male children and reinforcing male dominant attitudes and behaviors have been studied. According to researchers, it is interesting that there is no game available for girls on the computer. The behavior that is configured in this way reflects the attitude towards technology.

**Purpose of the research.** The aim of this study is to evaluate the views of middle school students on the use of smart board in terms of gender.

**Method.** The universe of the research constitutes 1330 students studying in the official secondary schools in the Tasova district of Amasya province in Turkey. Surveys that do not agree to fill out the questionnaire and fill in the questionnaire are not included in the study. The number of questionnaires that are suitable for statistical evaluation and evaluated is 1089. Data were analyzed in the SPSS 17 program in computer environment. The gender characteristics

Values For Gender Variable

Gender	f	%
Female	486	48,00
Male	526	52,00
Total	1089	100,00

Table 1.

considered as gender, male students showed more participation in the questionnaire than female students. This shows that male students love the use of smart board or the use of smart board.

Opinions of Middle School Students on Smart Board Applications

No	Articles	$\bar{x}$	ss
1	I enjoy learning with the smart board	4,25	1,02
2	I don't like getting educated on a smart board	2,56	1,58
3	Good use of technology is effective in having a good job	3,56	1,40
4	I focus better in the classroom when using smart board while teaching	3,73	1,25
5	If my teacher had used the smart board more, I'd have worked harder	2,50	1,51
6	I know that learning to use technology gives me opportunities to learn many new things	4,15	1,19
7	I can learn a lot when my teacher uses a smart board	4,07	1,10
8	I enjoy the lessons on the smart board	4,11	1,09
9	I believe that the more often teachers use a smart board, the more I enjoy school	3,22	1,45
10	I believe that learning how to use a smart board is important to me	3,40	1,47
11	I feel comfortable using a smart board	3,60	1,34
12	I enjoy using a smart board	3,94	1,23
13	I don't think it's gonna take longer to learn when my teacher uses a smart board	2,93	1,53
14	Using a smart board doesn't scare me	3,60	1,68
<b>Total</b>		<b>3,54</b>	<b>1,34</b>

Table 2.

of the group were determined by frequency and percentage distributions:

Table 1 shows that 486 of the participants were female students (48,00 %) and 526 were male students (52,00%).

**Analysis of the data.** The data collected as a result of the research were encoded in digital environment and made using the SPSS 17.0 (Statistical pack age for the Social Sciences) Program. Independent t-test was performed according to gender variables and significance level was accepted as ,05.

**Findings.** In this section of the study, the results obtained as a result of statistical analysis of the data are included. The views of secondary school students on smart board usage are shown in Table 2.

Table 2 shows that the participants adopt smart board use ( $x = 3,54$ ,  $ss = 1,34$ ). Students enjoy using smart board and think that learning to use technology will help them learn new things. Students benefit more when the teacher uses the smart board at school. When the frequency results of the survey were

The Independent t-test was used to test whether the opinions of the participants regarding smart board applications were meaningful in terms of gender variables and shown in Table 3.

According to the findings in Table 3, there was a significant difference in three articles in the Independent t test soncunda compared to gender ( $p < ,05$ ). Accordingly, the article "I don't like getting education on a smart board" has been found to be significantly different in favor of men ( $F = -3,374$ ;  $p < ,05$ ). Although the level of participation in this article is low, male students have shown more participation in this article than female students. According to the findings of the study, "If my teacher had used the smart board more, I'd have worked harder" was observed in favor of men. According to the findings, the article "I believe that the more of teachers use a smart board, the more I enjoy school" has shown a significant difference in favor of men. According to this, male students are satisfied with the use of smart board teachers, and the more they use, the more they think they will learn.

Table 3.

## Independent t Test Results for Smart Board Views Based on Gender Variables

Article	Gender	N	$\bar{x}$	sd	se	Independent t Test			
						t	se	F	p
1	Female	486	4,28	1,00	0,04	1,009	0,06	0,615	,313
	Male	526	4,22	1,04	0,04				
2	Female	486	2,39	1,55	0,07	-3,374	0,09	3,104	<b>,001</b>
	Male	526	2,72	1,60	0,07				
3	Female	486	3,58	1,42	0,06	0,501	0,08	1,664	,617
	Male	526	3,55	1,37	0,06				
4	Female	486	3,77	1,23	0,05	1,032	0,07	1,614	,303
	Male	526	3,69	1,27	0,05				
5	Female	486	2,30	1,46	0,06	-4,006	0,09	5,278	<b>,000</b>
	Male	526	2,68	1,54	0,06				
6	Female	486	4,16	1,20	0,05	0,161	0,07	0,269	,872
	Male	526	4,15	1,18	0,05				
7	Female	486	4,11	1,08	0,04	1,219	0,06	0,257	,223
	Male	526	4,03	1,12	0,04				
8	Female	486	4,10	1,09	0,04	-0,388	0,06	0,034	,698
	Male	526	4,13	1,09	0,04				
9	Female	486	3,10	1,45	0,06	-2,526	0,09	0,027	<b>,012</b>
	Male	526	3,33	1,44	0,06				
10	Female	486	3,38	1,45	0,06	-0,389	0,09	0,452	,697
	Male	526	3,41	1,48	0,06				
11	Female	486	3,55	1,33	0,06	-1,034	0,08	0,005	,301
	Male	526	3,64	1,35	0,05				
12	Female	486	3,97	1,18	0,05	0,857	0,07	2,826	,392
	Male	526	3,91	1,27	0,05				
13	Female	486	2,98	1,50	0,06	1,093	0,09	1,585	,275
	Male	526	2,88	1,54	0,06				
14	Female	486	3,60	1,66	0,07	0,217	0,10	1,179	,899
	Male	526	3,59	1,70	0,07				

**Discussion and Conclusions.** The students who participated in the study have a good view of the use of smart board. Students enjoy using smart board and think that learning with technology is beneficial to them. They also think that using technology will help them learn new things. This situation is thought to be positive for the use of smart board. These results are consistent with previous research on the use of smart board in classrooms [14 – 15 – 16 – 17 – 18 – 19] (Wall et al, 2005; Smith et al, 2005; Beeland, 2002; Аудэнлэ and Elaziz, 2010; Lewin et al, 2008; Сьнкьр and Arabacə, 2012). In addition, from the point of view of male and female students, male students are more involved in smart board use than female students. In his research, Wajcman [11] states that technology is compatible with men. It has also reached similar results in Turkle [12] and Lockheed [13] research.

Male students have adopted the idea of learning

with the smart board in the school and the teacher's use of the smart board in parallel and the more frequently used the learning. They also participate more in this view than female students. Of course, the contribution of technology to learning cannot be denied. The female students are unaware of this fact. But male students' enthusiasm for technology may have affected this result.

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“Ознака доброї освіти – говорити про найвищі предмети найпростішими словами”.

*Ральф Волдо Емерсон  
американський поет, філософ*

“Важливо вірити, що талант нам дається не просто так – і що за будь-яку ціну його потрібно для чогось використовувати”.

*Марія Склдовська-Кюрі  
французький педагог*

